

USSR/Medicine - Brill's Disease

FD-1623

Card 1/1 : Pub. 148-3/23

Author : Mertsalov, Ye. N.; Tungachina, Z. M.; Bendyukova, L. Ye; and Voly-nets, A. D.

Title : The problem of secondary exanthematous typhus in the Kazakh SSR

Periodical : Zhur. mikro. epid. i immun. 7, 11-13, Jul 1954

Abstract : Data on secondary exanthematous typhus [Brill's disease] obtained in epidemiological investigations carried out by epidemiologists in Kazakh SSR rayon and city sanitary-epidemiological stations in conjunction with scientific workers of the Kazakh Institute of Epidemiology and Microbiology are discussed. A brief statistical analysis of the data is given. One Soviet reference is cited.

Institution : Kazakh Institute of Epidemiology, Microbiology and Hygiene (Dir. Z. A. Roshchina)

Submitted : November 4, 1953

VOLYNETS, A.K. [Volynets', A.K.]

Materials for further studying the etiology of infectious atrophic rhinitis of swine. Mikrobiol. zhur. 26 no.3:69-73 '64.

(MIRA 18:5)

1. Ukrainskaya sel'skokhozyaystvennaya akademiya.

VOLYNETS, Aleksandr Potapovich; MASHTAKOV, Sergey Mikhaylovich;  
POZDMYAKOVA, A., red.

[Effect of 2M-4KH and 2, 4-D herbicides on fiber flax  
varieties] Deistvie gerbitsidov 2M-4KH i 2,4-D na sorta  
L'na-dolguntsa. Minsk, Nauka i tekhnika, 1965. 70 p.  
(MIRA 18:12)

VOLYNETS, A.P. [Valynets, A.P.]; MASHTAKOV, S.M. [Mashtakou, S.M.]

Reaction of some varieties of fiber flax to treatment with  
2,4-D and 2M-4Kh herbicides. Vestsi AN BSSR Ser. biol. nav.  
no.2:34-41 '63 (MIRA 17:3)

MASHTAKOV, S.M.; VOLNETS, A.P.

Interaction of gibberellic acid and the derivatives of  
phenoxyacetic acid in flax plants. Dokl. AN BSSR 7 no.4:  
266-269 Ap '63.  
(MIRA 16:11)

1. Institut biologii AN BSSR. Predstavлено академиком AN  
BSSR T.N. Godnevym.

VOLYNETS, A.P. [Valynets, A.P.]; MASHTAKOV, S.M. [Mashtakou, S.M.]

Morphological changes in the varieties of fiber flax treated  
with growth regulating herbicides. Vestsi AN BSSR. Ser, biyal.  
(MIRA 17:8)  
nav. no.4:33-39 '62.

MASHTAKOV, S.M.; VOLYNETS, A.P.

Interaction of gibberellic acid and the derivatives of phenoxyacetic acid in fiber plants. Dokl. AN SSSR 150 no.1:191-194 My '63.  
(MIRA 16:6)

1. Institut biologii AN Belorusskoy SSR. Predstavлено akademikom A.L.Kursanovym.

(Flax) (Gibberellic acid)  
(Plants, Effect of acids on) (Acetic acid)

1. Author: Smirnyy, V. V.; Volynets, I. S.; Bozilov, S. I.; Subenko, L. T.

AUTHOR: Smirnyy, V. V.; Volynets, I. S.; Bozilov, S. I.; Subenko, L. T.

TITLE: A method of gas-flame annealing of silicon crystals

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 13

TOPIC TAGS: single crystal growing, crystal dislocation, annealing

ABSTRACT: A method of annealing silicon crystals by flame heating

VOLYNETS, F. K., Cand Chem Sci (diss) -- "The evaporation of lubricating oils and greases used in the optical-mechanical industry". Leningrad, 1960.  
10 pp (State Order of Lenin Optical Inst im S. I. Vavilov), 150 copies  
(KL, No 11, 1960, 129)

VOLYNETS, I. (Perm')

They keep their promise. Pozh.delo 7 no.9:22 S '61.  
(MIRA 14:11)

(Perm--Fire departments)

VOLYNETS, I.

This is only the beginning. Sov.profsoiuzy 7 no.1;41-42  
Ja '60. (MIRA 12:12)  
(Socialist competition)

VOLYNETS, I.F., starshiy prepodavatel'

Communist Youth League, an active assistant of the CPSU  
profitability of state farms on virgin lands. Uch. zap.  
Stavr. gos. med. inst. 12:27-28 '63. (MIRA 17:9)

1. Kafedra marksizma-leninizma (zav. dotsent D.V. Popov)  
Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

CB  
11f

The regeneration of plasma proteins after loss of large amounts of blood. I. T. Vilkuna, J. mid. Utrane 8, 783-90 (in French, 1960) (1968). - The proteins of blood plasma are regenerated within 24 hrs. after removal of 25% of the blood vol. of rabbits by severance of the carotid artery. The erythrocyte: plasma ratio before and after bleeding was 1.1 and 1.2, resp. The values on the 1st, 5th, 10th and 20th days after bleeding for residual N were -2, -11, -16 and -8%, resp., for fibrinogen N +11, +37, -15 and -35%, resp., for albumin N -2, +1, +6 and +1%, resp., and for globulin N +13, +21, +18 and +25%, resp., of the initial values. The globulin value begins to increase 2 hrs. after bleeding. The hemoglobin content reaches a min. on the 5th day, at the point of max. protein increase, then increases to a max. on the 10th and returns to normal on the 20th day.

S. A. Karjala

—Ca

Volumetric analysis of silica brick and quartzites. M. Vaynshteyn. *Chim. Khim. Zhur.* 12, 167-174 (1937); *ibid.* 13, 172\*.—The sample is fused with NaOH. Fe and Ti are sepd. from Ca and Mg by means of NH<sub>3</sub>. Fe and Ti as well as Mg are then sepd. and pptd. with o-hydroxyquinoline. Ca is pptd. as the oxalate. Ca is dstd. with KMnO<sub>4</sub>; all others are dstd. by the bromometric method. B. Z. Kamich.

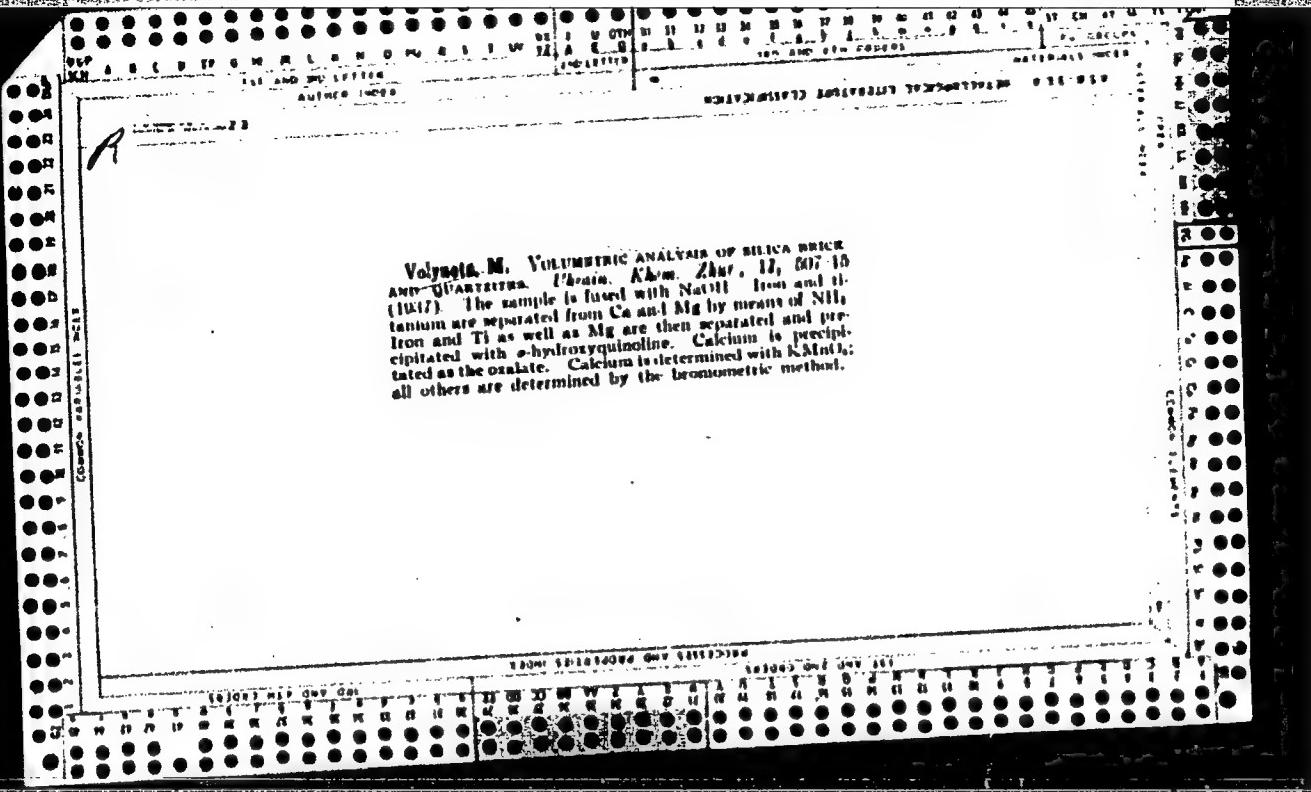
19

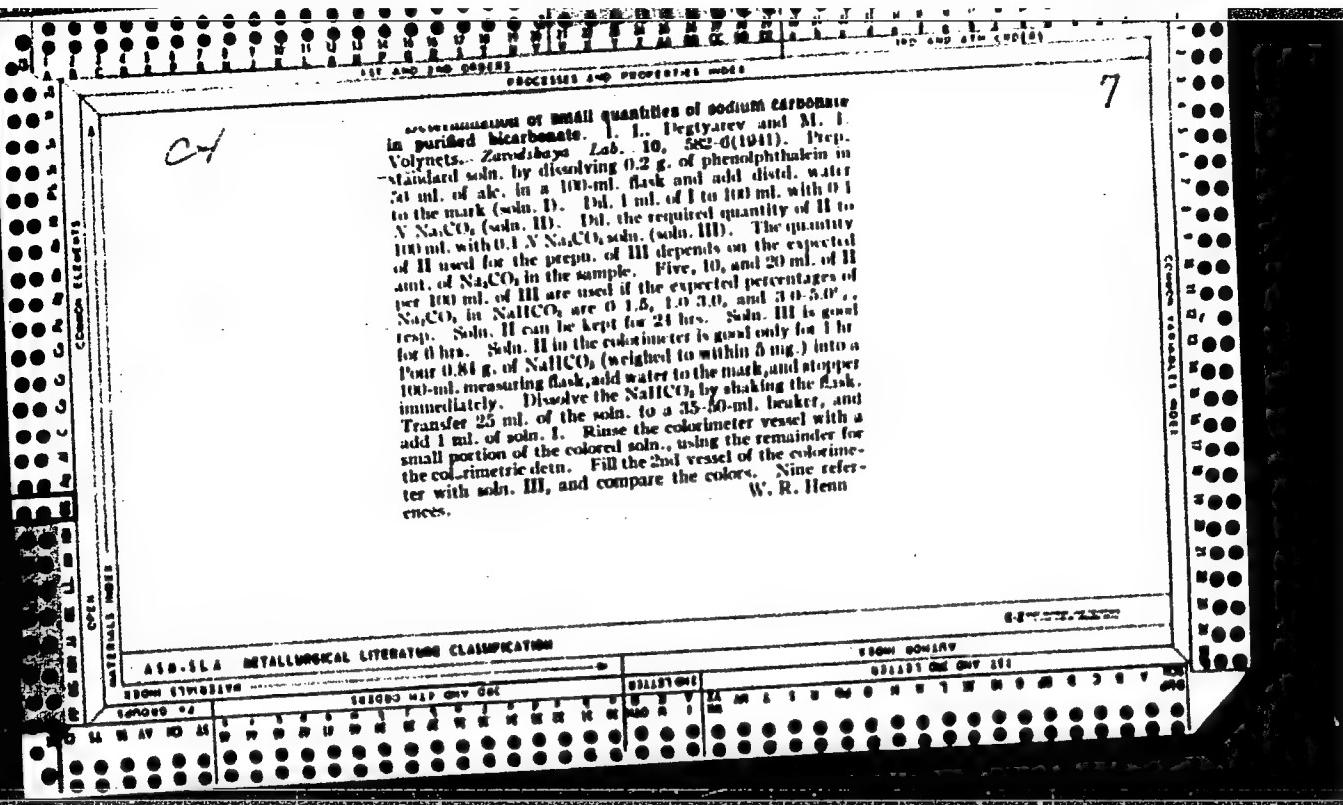
## **410-31A METALLURGICAL LITERATURE CLASSIFICATION**

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**APPROVED FOR RELEASE: 08/09/2001**

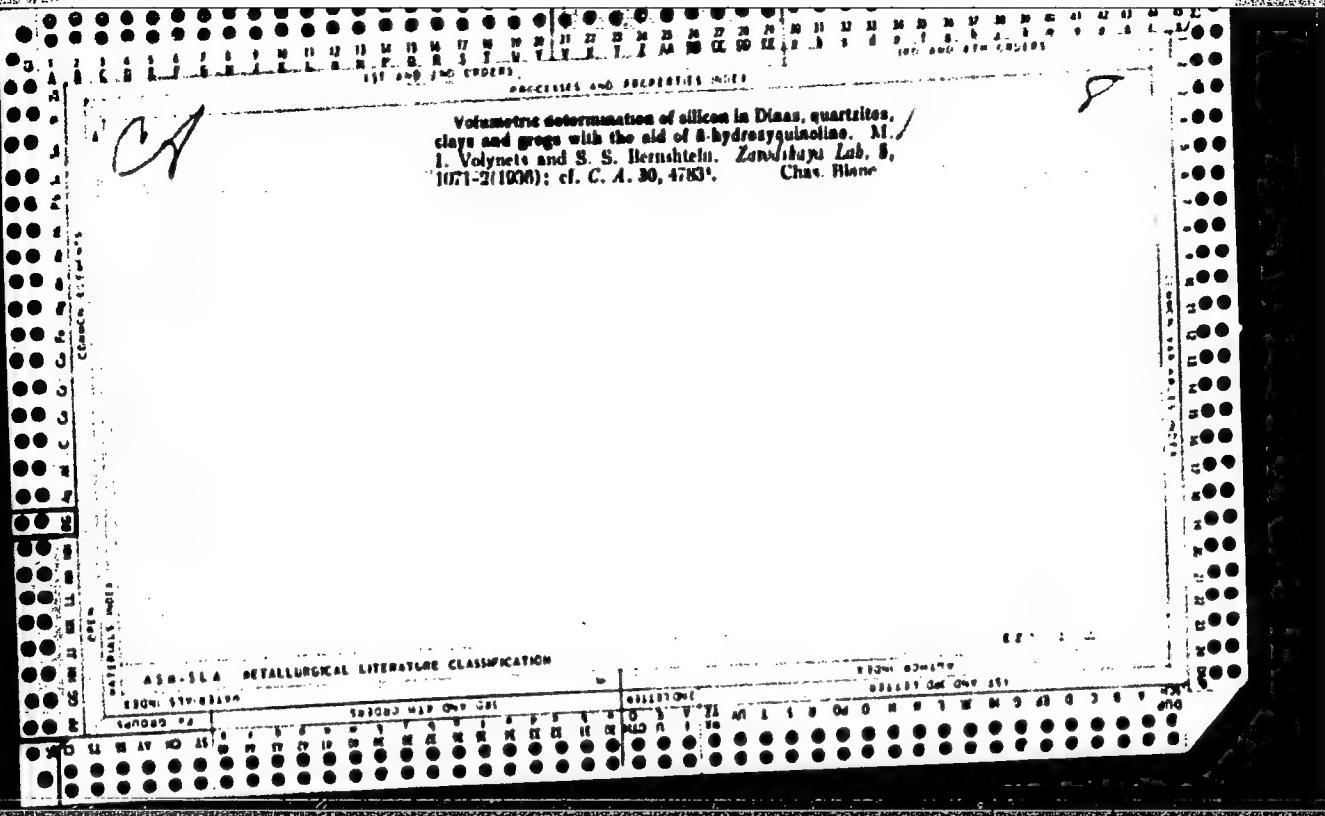
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"APPROVED FOR RELEASE: 08/09/2001

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APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3"

VOLYNETS, L.M.; LEVENKO, A.A.; MARKOVICH, M.L.; MUCHNIK, V.M.

Radar observation as a method for studying the influence  
on supercooled strati. Meteor. i gidrol. no.10:3-9 O '63.  
(MIRA 16:11)

1. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy  
institut.

VOLYNETS, L.M.; MARKOVICH, M.L.; MUCHNIK, V.M.

Some problems in increasing the accuracy of radar measurement  
of amounts of precipitation. Trudy UkrNIGMI no. 42:42-52 '64  
(MIRA 18:1)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3"

L 20827-66 EWT(1)/FCC GW

UR/2599/65/000/047/0051/0058

ACCESSION NR: AT5017684

AUTHORS: Volynets, L. M.; Markovich, M. L.; Muchnik, V. M.

10  
9  
B + 1

TITLE: Some results of measuring rainfall amounts per area by radar

SOURCE: Kiev. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy  
institut. Trudy, no. 47, 1965. Voprosy aktivnykh vozdeystviy na atmosfernyye  
processy (Problems of active influences on atmospheric processes), 51-58

TOPIC TAGS: rainfall, radar, measurement accuracy, weather station

ABSTRACT: The precision of radar measurements of rainfall in showers is examined in relation to its dependence on size of area and length of time interval between measurements. It was found that the precision increases as the area of measurements is increased. In comparing such computations with rain gage measurements at stations arranged in a network with a density of 1 per 16 km<sup>2</sup>, the average error for an area of 81 km<sup>2</sup> proved to be 12%, with a maximum of 37%. For an area of 162 km<sup>2</sup> the corresponding values are 10 and 30%, for 324 km<sup>2</sup> 8 and 16%, and for 648 km<sup>2</sup> 7 and 14%. The average rainfall for the 81-km<sup>2</sup> area was 0.1-4.2 mm.

L 20827-66

ACCESSION NR: AT5017684

Two methods of computing average rainfall were considered. One was based on the assumption that the rainfall intensity does not change during the time interval between measurements, and the other was based on the assumption that the intensity varies linearly with time during the interval. For 2-minute intervals between measurements, the method of computation (for rainfall per hour for the 81-km<sup>2</sup> area) made little difference on the results. For intervals of 4 to 10 minutes, however, it was found to be much more accurate to use the second method. This accuracy further depends on the length of the time interval. The average variation for computations with a 4-minute interval, using the second method, is 3% as compared with the 2-minute interval; the maximum is 6%. For the 6-minute interval the variance is 4% for the average, 7% for the maximum, and for the 10-minute interval the two values are 10 and 29%. It thus becomes clear that measurements should be made at intervals of 2 minutes or less. Orig. art. has: 1 figure, 3 tables, and 3 formulas.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (Ukrainian Scientific Research Hydrometeorological Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES

NO REF Sov: 003

OTHER: 003

Card 2/2 vmb

L 10687-65 EWT(1)/EWG(v) Pe-5/Pae-2 ASD(f)-2/APGC(b)/AFETR/AEDC(b)/  
AFWL/SSD/ECD(t) GW

ACCESSION NR: AT4046362

S/2599/64/000/041/0186/0192

AUTHOR: Voly\*nets, L. M., Zheleznyakova, T. V., Oleynik, R. N., Perelet, N. A.

TITLE: An attempt at recording the intensity of direct solar radiation in separate parts of the spectrum

SOURCE: Kiyev Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy\*, no. 41, 1964. Voprosy teplovogo i vodnogo balansa (Problems of heat and water balance), 186-192

TOPIC TAGS: actinometer, heliograph, spectroheliograph, solar radiation, insulation

ABSTRACT: The authors constructed a spectroheliograph equipped with a type AT-50 actinometer and 6 filters. The 3-color recorder was a modified, 6-channel millivoltmeter of the MSShch-pr type with a sensitivity of 10 mV full scale. Glass filters were switched in synchronism with the recorder channels by means of selsyns, a 6-minute cycle period and allowing one minute between channels because of the inertia of the selsyns. The spectral results were recorded in 100000 layers but not in days of observation. The spectral bands were 0.45-0.55, 0.55-0.65, 0.65-0.75, 0.75-0.85, 0.85-0.95, 0.95-1.05 microns. The intensities of each layer were measured and their response to the sun was

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L 10687-65

ACCESSION NR: AT4046362

a quartz spectrophotometer. Corrections were made for transmission and reflection losses according to Berezkin's method, the complex transmission factors so obtained being converted into absolute values. The components of solar radiation were then plotted for a twelve-hour period, the components showing the same pattern as the integrations. The spectral distribution obtained was in agreement with that previously determined by Kurnik. There were large fluctuations in the overall flux, paralleled by variations in the components, but the available data were limited by the lack of sufficient clear weather. The long wavelength limit of each filter was 3000 m  $\mu$ , and the short wavelength limits were 290, 431, 535, 575, 638 and 697 m  $\mu$ , respectively, this range being considered adequate for all scientific purposes. Orig. art has: 4 tables, 2 figures and 1 equation.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut, Kiev (Ukrainian Hydrometeorological Scientific Research Institute)

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"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3

L 10687-65

ACCESSION NR: AT4046362

SUBMITTED: 00

ENCL: 00

SUB CODE: E8, AA

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APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3"

ACC NR: AP022220

SOURCE CODE: UR/0362/66/002/006/0617/0629

AUTHOR: Volynets, L. M.; Markovich, M. L.; Muchnik, V. M.

ORG: Ukrainian hydrometeorological research institute (Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut)

TITLE: Results of rainfall measurements by a distance-compensated radar

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 6, 1966, 617-629

TOPIC TAGS: radar, meteorologic radar, distance compensated signal radar, atmospheric precipitation/ARS-3 meteorologic radar

ABSTRACT: This paper discusses an improved meteorological radar with echo signal intensity compensation for the distance, and presents the results of rainfall measurements. Distance compensation is achieved by a logarithmic IF amplifier proposed by N. Kodaira (Pap. Meteor. Soc. Japan, v.10, no.2, 1959), which was incorporated into a standard ARS-3 weather radar. Compression of the dynamic correction range was added. Correction was effected between 8 and 80 km, corresponding to  $2\log(R/R_0)=20\text{db}$ ;  $R_0=8\text{km}$ . Results of a series of 15 rainfall measurements are presented. The radar delivers better data, faster. Error sources are discussed and thoughts on their alleviation given. Operation of the equipment and evaluation of the data are described in detail. Orig. art. has 4 figures, 10 formulas and 6 tables.

SUB CODE: 04, 17/ SUBM DATE: 10Jan66/ ORIG REF: 007/ OTH REF: 002  
Card 1/1 UDC 551.501.81

VOLYNETS, L.M.; MARKOVICH, M.L.; MUCHNIK, V.M.

Some characteristics of individual showers accord'ng to data  
of radar observations. Meteor. i gidrol. no.3:21-23 Mr '65.  
(MIRA 18:2)

1. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy  
institut.

MALYUTA, D.I., inzh.; VOLYNETS, M.A., inzh.; KIKOVKA, Ye.I., inzh.;  
KNYAZEV, K.I., inzh.; YEFREMOV, E.I., kand. tekhn. nauch; II'IN,  
V.I., inzh.

Experience in the blasting of hard ores by deep boreholes  
in the open-pit mine of the Krivoy Rog Mining and Ore Dressing  
Combine. Vzryv. delo no. 57/14:145-151 '65. (MIKA 18:11)

1. Novo-Krivorozhskiy gornoobogatitel'nyy kombinat (for Malyuta,  
Volynets, Kikovka, Knyazev). 2. Filial Instituta mekhaniki  
AN UkrSSR. (for Yefremov, Il'in).

DRUKOVANYY, M.F., kand. tekhn. nauk; YEFREMOV, E.I., kand. tekhn. nauk;  
KOMIR, V.M., inzh.; MALYUTA, D.I., inzh.; VOLYNETS, M.A., inzh.;  
KIKOVKA, Ye.I., inzh.

Ways of further improvements in the design of charges for blasting  
operations in mines. Vzryv. delo no. 57/14:198-209 '65.  
(MIRA 18:11)

1. Filial instituta mekhaniki AN UkrSSR (for Drukovanyy, Yefremov,  
Komir). 2. Novo-Krivorozhskiy gornoobogatitel'nyy kombinat imeni  
Leninskogo komsomola (for Malyuta, Volynets, Kikovka).

NIKONENKO, O.P., gornyy inzh.; ANDRIUTS, G.L., gornyy inzh.;  
POLISHCHUK, A.E., gornyy inzh.; VOLYNETS, M.I., gornyy inzh.

Operation of the SDG-1 bit-dressing machine. Sbor. nauch.  
trud. KGRI no.15:82-86 '63. (MIRA 17:8)

VOLYNETS, M.A., gornyy inzh.; KIKOVKA, Ye.I., gornyy inzh.; TKACHENKO, A.P.

Blasting operations in the pit of the New Krivoy Rog Mining  
and Ore Dressing Combine. Vzryv. delo no.53/10:163-171 '63.  
(MIRA 16:8)

1. Noyo-Krivorozhskiy gornoobogatitel'nyy kombinat imeni  
Leninskogo komsoomo (for Volynets, Kikovka). 2. Krivorozhskiy  
gornorudnyy institut (for Tkachenko).  
(Krivoy Rog Basin—Blasting)

VOLYNETS, M. P., GEL'PERIN, N. I., and KOLOSOVA, G. M.

"Injector Column for the Separation of Substances by Extraction,"  
by Prof N. I. Gel'perin, M. P. Volynets, and G. M. Kolosova,  
Khimicheskaya Nauka i Promyshlennost', Vol 1, No 5, Sep/Oct 56,  
pp 560-563

A new extraction column of the injector type, which has been designed by N. I. Gel'perin, is described. The effects of the concentration of the substance being extracted, the extracting agent, the acidity, and the salting-out agents on the coefficient of the distribution of uranium between tributylphosphate and water have been studied. Uranyl nitrate was separated from cobalt nitrate by extraction with a 10% solution of tributylphosphate in kerosene in a continuously operating injector column; an extraction of uranium to the extent of 95% was achieved thereby. The radioactive isotopes U<sup>233</sup> and Co<sup>60</sup> were used as tracers; the concentration of uranium was determined by measuring the alpha-radiation and that of cobalt by measuring the gamma-radiation. The effective height of the column equivalent to one equilibrium stage was found to be 137 millimeters at a rate of flow amounting to 2 liters per hour and a 1:1 ratio between the volumes of the two phases. According to the results obtained, the injector column can also be used for the separation of uranium from iron, chromium, manganese, nickel, and other elements besides cobalt.

*Item 1239*

VOLYNETS, M.P.

PHASE I BOOK EXPLOITATION

SOV/4443

Akademiya nauk SSSR. Komissiya po analiticheskoy khimii

Metody opredeleniya primesey v chistiykh metallakh (Methods of Determining Admixtures In Pure Metals) Moscow, 1960. 411 p. (Series: Its: Trudy, 12) 3,500 copies printed.

Resp. Eds.: A.P. Vinogradov, Academician, and D.I. Ryabchikov, Doctor of Chemical Sciences; Ed. of Publishing House: M.P. Volynets; Tech. Ed.: T.V. Polyakova.

PURPOSE: This collection of articles is intended for chemists, metallurgists, and engineers.

COVERAGE: The articles describe methods for detecting and determining various mixtures and their traces in pure metals. Also discussed are many chemical, physicochemical, electrochemical, spectrochemical and luminescence methods of analyzing materials of high purity. The editors state that these methods have been developed within the last five or six years by various Soviet scientific institutes, and are now widely used in research and factory laboratories of the Soviet Union. No personalities are mentioned. References, mostly Soviet, accompany each article.

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## Methods of Determining Admixtures(Cont.)

SOV/4443

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APPROVED FOR RELEASE: 08/09/2001

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## Methods of Determining Admixtures (Cont.)

SOV/4443

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IVANENKOV, Vladimir Nikolayevich ; BRUYEVICH, S.V., prof., otv.  
red.; VOLNETS, M.P., red.

[Hydrochemistry of the Bering Sea] Gidrokhimiia Beringova  
moria. Moskva, Izd-vo "Nauka," 1964. 136 p. (MIRA 17:6)

AUTHOR: Volynets, M. P.

8/030/60/000/03/032/044  
B015/B007

TITLE: Analysis of Rare and Semiconductor Elements

PERIODICAL: Vestnik Akademii nauk SSSR, 1960, Nr 3, pp 101 - 103 (USSR)

TEXT: A conference on the analysis of rare and semiconductor elements took place in Moscow from December 7 to 11, 1959. It was organized by the Gosplan SSSR (State Planning Committee of the USSR), the Gosudarstvennyy nauchno-tehnicheskiy komitet Soveta Ministrov SSSR (State Scientific-technical Committee of the Council of Ministers of the USSR), and the Akademiya nauk SSSR (Academy of Sciences of the USSR). The conference discussed, systematized, and generalized the material collected in this field by various institutions. It was attended by about 1000 delegates from 285 organizations as well as by guests from abroad. Methods of analyzing rare and semiconductor elements were studied in 150 reports. In plenary sessions A. P. Vinogradov spoke about the establishment of conditions for impurities in pure metals and N. P. Sazhin about the demands of industry concerning the degree of purity of materials. I. P. Alimarin discussed the prospects of raising the sensitivity and accuracy of analytical methods. R. L. Globus held a lecture on the present stage and the prospects of development of the industry of chemical reagents. D. I. Ryabchikov, I. P. Alimarin, V. A. Nazarenko, N. S. Poluektov, A. I. Busev, and V. L. Zolotavin spoke about problems concerning the analytical

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Analysis of Rare and Semiconductor Elements

S/030/60/000/03/032/044  
B015/B007

chemistry of various rare and semiconductor elements. Lectures held by N. M. Pomerantsev, M. S. Chupakhin, I. K. Zadorozhnyy, and V. I. Baranov dealt with the methods of nuclear and paramagnetic resonance, mass spectrometry, and gamma spectrometry. E. Ye. Vaynshteyn spoke about the present stage of X-ray spectrum analysis and its applications. A. K. Rusanov and V. V. Nedler showed that the production of improved sources of spectrum excitation is one of the most promising directions. A. N. Frumkin spoke about the utilization of polarographic maxima and solid electrodes. O. L. Kabanova dealt with the present stage and use of modern electrochemical analytical methods. S. I. Sinyakova, Ya. P. Gokhshteyn, S. B. Tsfasman, B. Ya. Kaplan, and Yu. I. Usatenko discussed the most promising methods of electrochemical analysis. It was found to be necessary to publish a guide-book on the use of the best methods.

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S/075/60/015/004/014/030/xx  
B020/B064

AUTHORS: Savvin, S. B., Volynets, M. P., Bahashov, Yu. A., and Bagreyev, V. V.

TITLE: Photometric Determination of Microquantities of Thorium in Rocks by Means of Arsenazo II

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 4,  
pp. 446 - 451

TEXT: The reagent arsenazo II is an improved analog of the reagent arsenazo (Uranon) (Ref. 6); its synthesis has been described in Ref. 1. Arsenazo II has a number of advantages over arsenazo I and many other reagents suggested for determining thorium; its chief advantage is that Th can be determined in sufficiently acid solutions (0.1 - 0.6 N HCl), and in the presence of rare earths, sulfates, phosphates, etc. In acid solutions arsenazo II reacts with Th, Zr, Ti, U<sup>IV</sup>, and Fe<sup>III</sup>, in weakly acid and neutral solutions with Al, U<sup>VI</sup>, Cr, Cu, ΣTR, etc. Fig. 1 shows the absorption curve of the reagent and its Th compound. The selectivity of

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Photometric Determination of Microquantities S/075/60/015/004/014/030/XX  
of Thorium in Rocks by Means of Arsenazo II . B020/B064

determining Th with arsenazo II is also warranted by the proper choice of the acid concentration and the use of masking substances. In 0.2 N HCl, the effect of almost all other elements is reduced to a minimum, and the masking of thorium by phosphates and sulfates is still slight. Large amounts of Zr and Ti have a disturbing effect, small amounts can be masked by adding of phosphates.  $2\gamma$  Ti,  $3\gamma$  Zr, 4-8 $\gamma$  Nb, and Ta, 5 $\gamma$  Fe<sup>III</sup>, 5 $\gamma$  Cr<sup>III</sup>, 5 $\gamma$  Mo, V, and W, 40 $\gamma$  U<sup>VI</sup>, 0.5 - 1 mg Al, and 10 - 150 mg K, Na, Ca, Mg,  $\Sigma$ TR, and Fe<sup>II</sup> do not affect the determination of 10 $\gamma$  Th. The limit is 5 - 10 $\gamma$  Th. The analyzed substance is decomposed by two- or threefold evaporation with hydrofluoric acid, the majority of Zr, Ti, Nb, Ta, Al, Fe, U<sup>VI</sup> are separated by the formation of soluble fluoride complexes,<sup>7</sup> and thorium is precipitated together with the rare earths and calcium which are its carrier substances. Variants of the separation method are given. In the fluoride method, precipitation is repeated by the action of hydrofluoric acid upon the hydroxide precipitate obtained after the dissolution of the first fluoride precipitate in hydrochloric acid and precipitation in ammonia. In the fluoride-oxalate method, after the decomposition of the

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Photometric Determination of Microquantities S/075/60/015/004/014/030/XX  
of Thorium in Rocks by Means of Arsenazo II B020/B064

sample with fluorides and removal of the fluoride ion by evaporation with  $\text{HCl} + \text{HClO}_4$ , homogeneous coprecipitation of thorium with the oxalates of rare earths or calcium with acetone dioxalic acid was carried out at the acid concentration suggested by V. I. Kuznetsov and I. V. Nikol'skaya (Ref. 7), and F. V. Zaykovskiy and L. I. Gerkhardt (Ref. 8) for calcium. The oxalates were filtered off, annealed, the oxides dissolved in  $\text{HCl}$  (1:10), and thorium photometrically determined with arsenazo II. The analysis took one day. The chromatographic separation of the impurities by ion exchange on the Soviet resin KY-2 (KU-2) in the H-form (100 mesh) is described. Table 1 shows the ratio between thorium and some impurities before and after separation, thus proving that all separation methods examined give satisfactory results. The degree of thorium extraction was determined by means of its radioisotope UXI and by measuring the soft  $\beta$ -radiation UXII with which it is in equilibrium. The total thorium losses amount to a maximum of 12-14%. Table 2 shows the results of thorium determinations by the three methods mentioned. They indicate that two methods, i.e., double fluoride precipitation (time of analysis, 6-8 hours) and fluoride-oxalate precipitation (time of analysis, 24 hours) can be recommended. Fig. 1

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Photometric Determination of Microquantities  
of Thorium in Rocks by Means of Arsenazo II

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B020/B064

shows the absorption curve of a  $2.5 \cdot 10^{-5}$  M arsenazo II solution and a Th-arsenazo II solution of the same concentration. Fig. 2 shows a calibration curve for thorium. There are 2 figures, 2 tables, and 12 references; 10 Soviet and 2 US.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the AS USSR, Moscow)

SUBMITTED: June 1, 1959

Card 4/4

ALIMARIN, I.P.; BILIMOVICH, G.N.; BUSEV, A.I.; VAYNSHTEYN, E.Ye.; VOLYNETS,  
M.P.; GORYUSHINA, V.G.; DYMOV, A.M.; YELINSON, S.V.; ZVIAGINTSEV,  
O.Ye.; KOLOSOVA, G.M.; KORCHEMNAYA, Ye.K.; LEBEDEV, V.I.; MALOPEKHOVA,  
G.A.; MELENT'YEV, B.N.; NAZARENKO, V.A.; NAZARENKO, I.I.; PETROVA, T.V.;  
POLUEKTOV, N.S.; PONOMAREV, A.I.; RYABUKHIN, V.A.; STROGANOVA, N.S.;  
CHERNIKHOV, Yu.A.; VINOGRADOV, A.P., akademik, otv. red.; RYABCHIKOV,  
D.I., doktor khim. nauk, prof., otv. red.; GUS'KOVA, O., tekhn. red.

[Methods for the determination and analysis of rare elements] Metody  
opredeleniya i analiza redkikh elementov. Moskva, 1961. 667 p.  
(MIRA 14:7)

1. Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii.  
(Metals, Rare and minor)

RYABCHIKOV, D.I.; VOLNETS, M.P.; ZARINSKIY, V.A.; IVANOV, V.I.

High-frequency titration. Report No.7: Carbonate compounds  
of thorium. Zhur. anal. khim. 18 no.3:348-356 Mr'63.  
(MIRA 17:5)

1. Institut geokhimii i analiticheskoy khimii imeni  
Vernadskogo AN SSSR, Moskva.

8/0075/64/019/005/0642/0643  
SESSION NR: AP4038917  
AUTHOR: Rynchikov, D. I.; Volynets, M. P.  
TITLE: Determination of thorium in a mixture of lanthanide series oxides (Polirit) by complexing chromatography.  
SOURCE: Zburnal analiticheskoy khimii, v. 19, no. 5, 1964, 642-643  
TOPIC TACS: thorium, ion exchange, complexing chromatography  
ABSTRACT: The determination of thorium, ion exchange, complexing chromatography  
mixture of lanthanide oxides consisting of  $\text{Ce}_2\text{O}_3$ ,  $\text{La}_2\text{O}_3$ ,  $\text{Pr}_2\text{O}_3$ ,  $\text{Nd}_2\text{O}_3$ ,  $\text{Pm}_2\text{O}_3$ ,  $\text{Sm}_2\text{O}_3$ ,  $\text{Eu}_2\text{O}_3$ ,  $\text{Gd}_2\text{O}_3$ ,  $\text{Tb}_2\text{O}_3$ ,  $\text{Dy}_2\text{O}_3$ ,  $\text{Ho}_2\text{O}_3$ ,  $\text{Er}_2\text{O}_3$ ,  $\text{Tm}_2\text{O}_3$ ,  $\text{Y}_2\text{O}_3$ ; approximately 2%  $\text{SiO}_2$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{Mn}_2\text{O}_3$ . Thorium is very similar in its properties to lanthanum. It was established that the possibility of separating thorium from lanthanides by complexing chromatography depends on the nature of the complexing agent used.

RDP86-00513R00186073

ACCESSION NR: AP4038917

solutions and then with Polirit. KU-2 cationite resin (50 - 80 mesh) was used in the ion exchange column. The final determination of thorium after separation was conducted spectrophotometrically, using arsenazo III. Polirit analyzed by this method in two simultaneous experiments contained  $4.7 \cdot 10^{-3}$  and  $4.9 \cdot 10^{-3}$  % Th. Orig. art. has: 1 figure.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. N. Vernadskogo AN SSSR, Moscow (Institute of Geochemistry and Analytical Chemistry, Academy of Sciences SSSR)

SUBMITTED: 21Oct63

ENCL: 00

SUB CODE: IC, GC

NO REF SOV: 003

OTHER: 000

Card 2/2

NEMODRUK, Aleksandr Andreyevich; KARALOVA, Zinaida Konstantinovna;  
VINOGRADOV, A.P., akademik, glav. red.; PALEY, P.N., red.;  
VOLYNETS, M.P., red.

[Analytical chemistry of boron ( ${}^10, {}^{811}B$ )] Analiticheskaya

khimiia bora ( ${}^10, {}^{811}B$ ). Moskva, Nauka, 1964. 282 p.  
(MIRA 17:11)

RYABCHIKOV, D.I.; VOLYNETS, M.P.

Thorium determination in the total of lanthanide oxides  
(polirit) by the method of complex-forming chromatography.  
Zhur. anal. khim. 19 no.5:642-643 '64. (MIRA 17:8)

I. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo  
AN SSSR, Moskva.

GINZBURG, Susanna Il'инична; GLADYSHEVSKAYA, Kluvdiya Antonovna;  
YEZERSKAYA, Natal'ya Anatol'yevna; IVCINA, Ol'ga  
Mikhaylovna; FOKOF'YEVA, Irina Vasil'yevna; FEDORENKO,  
Nina Vladimirovna; FEDOROVA, Aleksandra Nikolayevna;  
ZVYAGINTSEV, O.Ye., doktor khim. nauk, otd. red.;  
VOLYMETS, M.P., red.

[Manual on the chemical analysis of platinum metals and  
gold] Rukovodstvo po khimicheskому analizu platinovykh me-  
tallov i zolota. Moskva, Nauka, 1965. 312 p.  
(MIRA 18:2)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3

RYABOCHIKOV, D.I.; VOLYNETS, M.P.

Thorium complexons. Zhur. neorg. khim. 10 no.3:619-627 Kz '65.  
(MIRA 18:7)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3"

RYABCHIKOV, D.I.; VOLYNETS, M.P.; ZARINSKIY, V.A.; IVANOV, V.I.

Reply to the "remarks" by I.I. Cherniaev, V.A. Golovnia, A.K. Molodkin on the article by D.I. Riabchikov, M.P. Volynets, V.A. Zarinskii and V.I. Ivanov "High frequency titration. Report No.7: Thorium carbonate compounds". Zhur. anal. khim. 19 no.8:1038-1040 '64. (MIRA 17:11)

RYABCHIKOV, D.I., otv. red.; ALIMARIN, I.P., red.; PALEY, P.N.,  
red.; BORISOVA, L.V., red.; ZOLOTOV, Yu.A., red.;  
SENYAVIN, M.M., red.; KARYAKIN, A.V., red.; VOLNETS,  
M.P., re

[Modern methods of analysis; methods of studying the  
chemical composition and structure of substances. On  
the seventieth birthday of Academician A.P.Vinogradov].  
*Sovremennye metody analiza; metody issledovaniia khimi-  
cheskogo sostava i stroeniiia veshchestv. K semidesiati-  
letiiu akademika A.P.Vinogradova.* Moscow, Nauka, 1965.  
333 p. (MIRA 18:7)

1. Akademiya nauk SSSR. Institut geokhimii i analitiche-  
skoy khimii. 2. Chlen-korrespondent AN SSSR (for  
Ryabchikov).

SAVVIN, S.B.; VOLNETS, M.P.

Structure of the complexes of Th and La with arsenazo III.  
Zhur. neorg. khim. 8 no.11:2470-2478 N '63.

(MIRA 17:1)

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo AN SSSR.

RYABCHIKOV, D.I.; VOLYNETS, M.P.; ZARINSKIY, V.A.

Reaction of thorium with sodium hexamethylenediamine  
tetraacetate. Zhur.anal.khim. 18 no.4:542-544 Ap '63.

(MIRA 16:6)

1. V.I.Vernadsky Institute of Geochemistry and Analytical  
Chemistry, Academy of Sciences, U.S.S.R., Moscow.  
(Thorium compounds) (Acetic acid)

RYABCHIKOV, Dmitriy Ivanovich; TSITOVIDCH, Igor' Konstantinovich;  
VINOGRADOV, A.P., akademik, otv. red.; VOLYNETS, M.P.,  
red.; DOROKHINA, I.N., tekhn. red.

[Ion exchange resins and their uses] Ionochmennye smoly i  
ikh primenenie. Moskva, Izd-vo AN SSSR, 1962. 185 p.  
(MIRA 16:8)

(Ion exchange resins)

KARYAKIN, A.V.; VOLNETS, M.P.; Prihimala uchastiye: ZUBRILINA, M.Ye.

Infrared spectra of the carbonate complex of thorium. Zhur.  
strukt.khim. 3 no.6:714-716 '62. (MIRA 15:12)

1. Institut geokhimi i analiticheskoy khimii imeni Vernadskogo.  
(Thorium compounds—Spectra) (Carbonates)

BORNEMAN, I.D., doktor geol.-mineral.nauk, otv.red.; VOLYNETS, M.P., red.--  
izd.via; LEBEDEVÁ, L.A., takhn.red.

[Methods for the chemical analysis of minerals. Vol. 1.]. Metody  
khimicheskogo analiza mineralov. Maskva, Izd. vo Akad. nauk SSSR,  
1961. 99 p. (Akademija nauk SSSR. Institut geologii rudnykh  
mestorozhdenii, petrografii, mineralogii i geokhimii. Trudy, no.  
64). (MIRA 15:10)

(Mineralogy, Determinative)

BUSEV, Aleksey Ivanovich; VINOGRADOV, A.P., akademik, glav. red.;  
ALIMARIN, I.P., red.; BABKO, A.K., red.; VAYNSSTEYN, E.Ye.,  
red.; YERMAKOV, A.N., red.; KUZNETSOV, V.I., red.; PALEV, P.N.,  
red.; RYABCHIKOV, D.I., red.; TANANAYEV, I.V., red.; CHERNIKHOV,  
Yu.A., red.; VOLYNETS, M.P., red.; MAKUNI, Ye.V., tekhn. red.

[Analytical chemistry of molybdenum] Analiticheskaya khimiia mo-  
lybdena. [By] A.I.Busev. Moskva, Izd-vo Akad. nauk SSSR, 1962.  
300 p.

(MIRA 16:1)

(Molybdenum—Analysis)

S/192/62/003/006/003/004  
D228/D307

AUTHORS: Karyakin, A.V. and Volynets, M.P.  
TITLE: Infrared spectra of the carbonate complex of thorium  
PERIODICAL: Zhurnal strukturnoy khimii, v. 3, no. 6, 1962, 714-  
716

TEXT: The aim of the research was to demonstrate the participation of  $\text{CO}_3^{2-}$  ions in the coordination bond of  $\text{Na}_4[\text{Th}(\text{CO}_3)_4]$ .  $\text{Na}_2\text{CO}_3 \cdot 12\text{H}_2\text{O}$  and the presence of free  $\text{CO}_3^{2-}$  in the outer sphere of this complex. Measurements were made on a UR-10 spectrophotometer on wavelengths of 400 to 4000  $\text{cm}^{-1}$ . Data for the hydrated complex show that the frequencies of  $\text{CO}_3^{2-}$  absorption bands coincide quite well with those for the complex  $[\text{Co}(\text{NH}_4)_4\text{CO}_3]$ . Besides absorption bands, relating to  $\text{CO}_3^{2-}$  ions in the inner sphere of the complex, there are others with frequencies of 870 and 1070  $\text{cm}^{-1}$ , possibly relating to the absorption of hydrated  $\text{CO}_3^{2-}$  present in the outer sphere. This is confirmed by appearance of certain absorption bands

Card 1/2.

Infrared spectra ...

S/192/62/003/006/003/004  
D228/D307

in the infrared spectrum of the dehydrated complex. These bands have frequencies of 700-705 and 855 cm<sup>-1</sup> and are characteristic and anhydrous Na<sub>2</sub>CO<sub>3</sub>. There are 2 tables and 1 figure.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo (Institute of Geochemistry and Analytical Chemistry im. V.I. Vernadskiy)

SUBMITTED: July 20, 1962

Card 2/2

LAZAREV, K.G., kand. khim. nauk, otv. red.; VOLNETS, M.P., red.;  
RYLINA, Yu.V., tekhn. red.

[Modern methods of analyzing natural waters] Sovremenye metody  
analiza prirodnnykh vod. Moskva, Izd-vo Akad. nauk SSSR, 1962.  
203 p. (MIRA 15:10)

l. Akademiya nauk SSSR. Gidrokhimicheskiy institut, Novocher-  
kassk.

(Water--Analysis)

UDAL'TSOVA, N.I.; SAVVIN, S.B.; NEMODRUK, A.A.; NOVIKOV, Yu.P.;  
DOBROLYUBSKAYA, T.S.; SINYAKOVA, S.I.; BILIMOVICH, G.N.;  
SENDYUKOVA, A.S.; BELYAYEV, Yu.I.; YAKOVLEV, Yu.V.;  
NEMODRUK, A.A.; CIMUTOVA, M.K.; GUSEV, N.I.; PALEY, P.N.;  
VINOGRADOV, A.P., akademik, glav. red.; ALIMARIN, I.P.,  
red.; BABKO, A.K., red.; BUSEV, A.I., red.; VAYNSHTEYN, E.Ye.,  
red.; YERMAKOV, A.N., red.; KUZNETSOV, V.I., red.; RYABCHIKOV,  
D.I., red. toma; TANANAYEV, I.V., red.; CHERNIKHOV, Yu.A., red.;  
SENYAVIN, M.M., red. toma; VOLYNETS, M.P., red.; NOVICHKOVA, N.D.,  
tekhn. red.; GUS'KOVA, O.M., tekhn. red.

[Analytical chemistry of uranium] Analiticheskaya khimiia urana.  
Moskva, Izd-vo Akad.nauk SSSR, 1962. 430 p. (MIRA 15:7)

1. Akademiya nauk SSSR. Institut geokhimii i analiticheskoy  
khimii.

(Uranium—Analysis)

RYABCHIKOV, Dmitriy Ivanovich; TSITOVIDCH, Igor' Konstantinovich;  
VINOGRADOV, A.P., akademik, oty. red.; VOLYNETS, M.P., red.;  
DOROKHINA, I.N., tekhn. red.

[Ion exchange resins and their uses] Ionoobmennye smoly i ikh  
primenenie. Moskva, Izd-vo Akad.nauk SSSR, 1962. 185 p.

(MIRA 15:7)

(Ion exchange resins)

SOLNTSEV, A.M., kand.med.nauk; VOLYNETS, O.I.

Observation of marble disease (osteopetrosis) in the lower extremities. Vrach.delo no.11:1199 II '59. (MIRA 13:4)

1. Kafedra chelyustno-litsevoy khirurgii (zavednyushchiy - prof. E.A. Aleksandrova) Kiyevskogo instituta usovershenstvovaniya vrachey, i gorodskaya klinicheskaya bol'ница.  
(EXTREMITIES, LOWER--DISEASES) (BONES)

APANAS'YEVA, A.L., kand.biol.nauk; BAYMRTUYEV, A.A., kand.sel'skokhozyaystvennykh nauk; BAL'CHUGOV, A.V., kand.sel'skokhozyaystvennykh nauk; BESLOZIROVA, N.A., agronom; BENOZOROV, A.T., kand.sel'skokhozyaystvennykh nauk; MAKSIMENKO, V.P., agronom; BERNIKOV, V.V., doktor sel'skokhozyaystvennykh nauk; BOGOMYAGKOV, S.T., kand.sel'skokhozyaystvennykh nauk; VOLYNETS, O.S., agronom; BODROV, M.S., kand.sel'skokhozyaystvennykh nauk; BOGOSLAVSKIY, V.P., kand.tekhn.nauk; KHRUPPA, I.P., kand.tekhn.nauk; VERNER, A.R., doktor biol.nauk; VOZBUTSKAYA, A.Ye., kand.sel'skokhozyaystvennykh nauk; VOINOV, P.A., kand.sel'skokhozyaystvennykh nauk; VYSOKOS, G.P., kand.biol.nauk; GALDIN, M.V., inzhener-mekhanik; GERASIMOV, S.A., kand.tekhn.nauk; GORSHENIN, K.P., doktor sel'skokhozyaystvennykh nauk; YELENEV, A.V., inzhener-mekhanik; GERASKEVICH, S.V., mekhanik [deceased]; ZHARIKOVA, L.D., kand.sel'skokhozyaystvennykh nauk; ZHEGALOV, I.S., kand.tekhn.nauk; ZIMINA, Ye.A., agronom; BARANOV, V.V., kand.tekhn.nauk; PAVLOV, V.D.; IVANOV, V.K., kand.sel'skokhozyaystvennykh nauk; KAPLAN, S.M., kand.sel'skokhozyaystvennykh nauk; KATIN-YARTSEV, L.V., kand.sel'skokhozyaystvennykh nauk; KOPYRIN, V.I., doktor sel'skokhozyaystvennykh nauk; KOCHERGIN, A.Ye., kand.sel'skokhozyaystvennykh nauk; KOZHEVNIKOV, A.R., kand.sel'skokhozyaystvennykh nauk; KUZNETSOV, I.N., kand.sel'skokhozyaystvennykh nauk; LAMBIN, A.Z., doktor biol.nauk; LEONT'YEV, S.I., kand.sel'skokhozyaystvennykh nauk; MAYBORODA, N.N., kand.sel'skokhozyaystvennykh nauk; MAKAROVA, G.I., kand.sel'skokhozyaystvennykh nauk; MEL'NIKOV, G.A., inzhener; ZHDANOV, B.A., kand.sel'skokhozyaystvennykh nauk; MIKHAYLENKO, N.A., kand.sel'skokhozyaystvennykh nauk; MAGILEVTSEVA, N.A., kand.sel'skokhozyaystvennykh nauk;

(Continued on next card)

AFANAS'YEVA, A.L.... (continued) Card 2.

NIKIFOROV, P.Ye., kand.sel'skokhozyaystvennykh nauk; NEHASHEV, N.I., lesoved; PERVUSHINA, A.N., agronom; PLOTHIKOV, V.A., kand.biol.nauk; L.G.; kand.sel'skokhozyaystvennykh nauk; PAVLOV, V.D., kand.tekhn. nauk; PRUTSKOVA, M.G., kand.sel'skokhozyaystvennykh nauk; GURCHENKO, V.S., agronom; POPOVA, G.I., kand. sel'skokhozyaystvennykh nauk; PORTYANKO, A.F., agronom; RUCHKIN, V.N., prof.; RUSHKOVSKIY, T.V., agronom; SAVITSKIY, M.S., kand.sel'skokhozyaystvennykh nauk; BOLDIN, D.T., agronom; NESTEROVA, A.V., agronom; SERAFIMOVICH, L.B., kand. tekhn.nauk; SMIRNOV, I.N., kand.sel'skokhozyaystvennykh nauk; SERMBRYAISKAYA, P.I., kand.tekhn.nauk; TOKHTUYEV, A.V., kand. sel'skokhozyaystvennykh nauk; FAL'KO, O.S., iznh.; YMDYUSHIN, A.V., doktor biol.nauk; SHEVLYAGIN, A.I., kand.sel'skokhozyaystvennykh nauk; YAKHTEL'D, P.A., kand.sel'skokhozyaystvennykh nauk; SEMENOVSKIY, A.A., red.; GOR'KOVA, Z.D., tekhn.red.

[Handbook for Siberian agriculturists] Spravochnaya kniga agronoma Sibiri. Moskva, Gos. izd-vo sel'khoz. lit-ry. Vol.1. 1957. 964 p.  
(Siberia--Agriculture) (MIRA 11:2)

POLYAKOV, A.I.; VOLYNETS, M.P.

Thorium distribution in a series of ultrabasic alkaline rocks of  
the Kola Peninsula. Geokhimiia no.5:426-432 '61. (MIRA 14:5)

I. V. I. Vernadsky Institute of Geochemistry and Analytical  
Chemistry, Academy of Sciences U.S.S.R., Moscow.  
(Kola Peninsula—Rocks, Igneous)  
(Thorium)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3

KOTOV, A.I., podpolkovnik meditsinskoy sluzhby; TAIAN, F.S.;  
VOLYNETS, M.T.

Content of vitamin C in soldiers' rations. Voen.-med. zhur.  
no. 3:53-55 '65. (MIRA 18:11)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3"

VOLYNETS, O.N.; KOLOSKOV, A.V.; FLEROV, G.B.; FRIKH-KHAR, D.I.; SHILIN, N.L.

Formational delineation of Tertiary plutonic and volcanic-plutonic formations in central Kamchatka. Dokl. AN SSSR 165 no.1:153-155  
N '65. (MIRA 18:10)

1. Institut vulkanologii Sibirskogo otdeleeniya AN SSSR. Submitted  
March 10, 1965.

VOLYNETS, O.N.; SHILIN, N.L.

On a type of ore manifestation new to Kamchatka. Dokl. AN SSSR 161  
no.6:1412-1415 Ap '65.  
(MIRA 18:5)

1. Institut vulkanologii Sibirskogo otdeleniya AN SSSR. Submitted  
December 2, 1964.

VOLYNETS, O.N.; FLEROV, G.B.; FRIKH-KHAR, D.I.; SHILIN, N.L.

Evolution of the Tertiary igneous activity in the central range  
of Kamchatka. Geol. i geofiz. no.5:103-107 '63. (MIRA 16:8)

1. Kamchatskaya geologo-geofizicheskaya laboratoriya Sibirskogo  
otdeleniya AN SSSR.  
(Kamchatka—Geology, Structural)  
(Kamchatka—Rocks, Igneous)

VOLYNETS, O. S.

SUNFLOWERS

Results of selection and substitution of new varieties of sunflowers.  
Sel. i sem. 19 no. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952.  
UNCLASSIFIED.

VOLYNETS, O. S.

Oilseed Plants

Gold-of-pleasure in the U.S.S.R. Sov. agron. 11 No. 3, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

VOLYNETS, V.; USHAKEVICH, A.  
APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001860730003-3"  
Brief news. Zdrav.Bel. 8 no.2:77 F '62. (MIA 15:11)  
(PUBLIC HEALTH)

VOLYNETS, V.

In the Ministry of Public Health of the White Russian S. S. R.  
Zdrav. Del. 8 no.4:77-78 Ap '62. (MIRA 15:6)  
(WHITE RUSSIA—PUBLIC HEALTH)

9.2586 (1161)

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S/108/61/016/011/007/007  
D201/D304

AUTHOR: Volynets, V.F., Member of the Society

TITLE: A transistorized controlled delay phantastron

PERIODICAL: Radiotekhnika, v. 16, no. 11, 1961, 67 - 73

TEXT: A transistorized phantastron (Fig. 1) is described which is a dual of the "triode phantastron", developed from the circuit suggested by V.I. Voytenko (Ref. 1: Ya.S. Itskhoki, Impul'snaya tekhnika (Pulse Technique), Izd. Sov. radio, 1959). It differs from other phantastron circuits by a cathode follower  $T_3$  being included into the anode cct of  $T_1$ , instead of a resistor. The control of the grid voltage of the cathode follower is by value  $T_2$ . The triode phantastron differs from the usually used circuits in that it has a very small intrinsic non-linearity, does not load the control potentiometer and the overall non-linearity of the delay system is determined only by the specification of the control potentiometer. Its delay time is also more stable with varying heater supply and consumes less power. E.g. if the delay instability in the circuit with ca-

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thode follower and grid of  $T_1$ , changes by  $\pm 0.1\%$  for a 10 % heater voltage change, the change of delay in a triode phantastron is reduced to  $\pm 0.03\%$ . An additional feature is the presence of a second d.c. positive feedback through  $T_2$  and  $T_3$  which makes it possible to use pentodes with high amplification factors (up to  $10^4$ ) and finally it makes it possible to replace the valves by transistors. The circuit using n-p-n transistors is given in Fig. 4 which is a near perfect dual of the valve phantastron. In this circuit:  $R_1 = 51 \text{ K}$ ,  $R_2 = 11 \text{ K}$ ,  $R_3 = 5.1 \text{ K}$ ,  $R_4 = 0.4 \text{ K}$ ,  $R_5 = 0.3 \text{ K}$ ,  $R_6 = 0 \text{ K}$ ,  $R_7 = 10 \text{ K}$ ,  $R_8 = 3.3 \text{ K}$ ,  $R_9 = 2 \text{ K}$ ,  $R_{10} = 0.2 \text{ K}$ ,  $R_{11} = 0.3 \text{ K}$ ;  $C_1 = 4.7 \times 10^{-4} \text{ nf}$ ;  $C_2 = 10^{-4} \text{ nf}$ ;  $T_1$ ,  $T_2$ ,  $T_3$  - transistors type  $\Pi-103$  (P-103)  $D_1$ ,  $D_2$  - diodes type  $A-101$  (D-101); E-21V. The difference consists in addition of diodes  $D_1$  and  $D_2$ .  $D_1$  determines the level at the base of  $T_1$ ,  $D_2$  - limits the voltage drop at the collector of  $T_2$  and prevents saturation. As opposed to the cct in Fig. 1, the transistorized phantastron operates at large currents of the cathode follower. The cct for the p-n-p transistors remains the same except

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for the polarity of supply and diodes and also that of input and output voltages. The circuit non-linearity is determined in the usual way by considering the discharge of the capacitor through a current stabilized two-pole and using the transistor characteristic [REDACTED] For the above case the non-linearity  $\delta_{max}$  was calculated to

be 0.25 %. There is moreover, another component of non-linearity which is the non-linear dependence of the low level potential at the collector of T<sub>2</sub> on the angle of rotation  $\varphi$  of the potentiometer. This component is of opposite sign to the previous one, so that by using a single compensating resistor R<sub>12</sub>, the overall non-

linearity may be reduced to 0.1 %. The results of the experiments showed that the delay stability may be kept below  $\pm 0.1 \%$ , provided the supply is stabilized within  $\pm 5 \%$  for a two-cathode follower circuit and  $\pm 3 \%$  for a single cathode-follower stage, the delay stability increases at large delay times. C<sub>1</sub> and C<sub>2</sub> are temperature stable components. The temperature instability is determined mainly by the rate of discharge of C<sub>1</sub>. The temperature compensation is thus achieved by temperature compensation of T<sub>1</sub> or by using in the

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current stabilizing dipole a transistor with a gain independent of temperature which has been confirmed experimentally. The cct consumes about 0.5 Watt without triggering. The cct is recommended for all applications requiring a high linearity delay and the use of transistors is stated not to affect the properties of the circuit. There are 14 figures and 2 Soviet-bloc references. X

ASSOCIATION: Nauchno-tehnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communication im. A.S. Popov) [Abstractor's note: Name of Association taken from 1st page of journal]

SUBMITTED: October 1, 1960 (initially)  
June 12, 1961 (after revision)

Card 4/54

ANDREIEVA, Ye.P.; SEGALOVA, Ye.Ye.; VOLYNETS, Ye.Ye.

Effect of calcium chloride on structure formation in aqueous suspensions of tricalcium aluminate. Dokl.AN SSSR 123 no.6:  
1052-1055 D '58. (MIRA 12:1)

1. Katedra kolloidnoy khimii Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova. Predstavлено академику P.A. Rebinerom.  
(Calcium aluminates) (Calcium chloride)  
(Cement)

5(4)

AUTHORS:

Andreyeva, Ye. P., Segalova, Ye. Ye.,  
Volynets, Ye. Ye.

SG7/20-127-6-26/50

TITLE:

The Influence of Calcium Chloride on the Processes of Structure Formation in Aqueous Suspensions of Tricalcium Aluminate  
(Vliyanie khloristogo kal'tsiya na protsessy strukturoobrazovaniya v vodnykh suspenziyakh trekhkal'tsiyevogo aluminata)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 6, pp 1052-1055  
(USSR)

ABSTRACT:

In order to be able to explain the mechanism of the influence exercised by calcium chloride on Portland cement it is, above all, necessary to know its influence upon the processes of structure formation in suspensions of tricalcium aluminate ( $C_3A$ ). This material, which is contained in cement clinker, determines the character of the processes of structure formation during the first stages of the interaction between cement and water. For this purpose the kinetics of structure formation and of the chemical interaction in suspensions of  $C_3A$  and its

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of Structure Formation in Aqueous Suspensions of Tricalcium Aluminate

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hydrate  $C_3A \cdot aq$  ( $3CaO \cdot Al_2O_3 \cdot 6H_2O$ ) was investigated. These substances were dissolved in solutions of calcium chloride of different concentrations. For such investigations it is best to use mixtures containing from 2 to 10% binding agents and 98-90% filling material (ground quartz sand or calcite). Concentrated suspensions were produced by soaking these mixtures. This made it possible to destroy the crystal structure in the suspension immediately after solution. The samples were kept above water and the corresponding solutions of calcium chloride. The processes of structure formation in the suspensions were characterized by the increase of plastic strength. The results obtained by these experiments are shown by 3 diagrams. The quantity of bound calcium chloride present after the action was the same in all investigated suspensions and amounted to 0.75 mol  $CaCl_2$  per 1 mol  $C_3A$ . Radiographical and thermographical investigations showed the following: In all suspensions in which the quantity of calcium chloride suffices for binding the entire existing  $C_3A$  and its hydrate one and the same compound is formed. The kinetics of the chemical binding of calcium chloride depends to a considerable extent on the composition

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of the suspension and especially on the concentration of the calcium chloride solutions. In the solutions of hydroaluminate interaction at first develops more slowly than in suspensions of C<sub>3</sub>A after which, however, the rate of setting increases, and this reaction is in all cases completed already on the second day. In suspensions of C<sub>3</sub>A (which may be of higher concentration than calcium hydrochloroaluminate) the formation of hydrochloroaluminate at first develops very rapidly, but by the addition of medium quantities of CaCl<sub>2</sub>, the process becomes more slow. This may be explained by the decelerating influence of hydrochloroaluminate microcrystals which were formed in the case of high degrees of oversaturation and which formed protective films on the surface of the original C<sub>3</sub>A-particles. The special features of the kinetics of the interaction between C<sub>3</sub>A and its chlorate and calcium chloride determine also the special features of structure formation processes in these suspensions.

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In the suspensions C<sub>3</sub>A which contain no additions of calcium chloride strengthening continues also after binding of the entire calcium chloride. There are 3 figures and 8 references, 7 of which are Soviet.

ASSOCIATION: Kafedra kolloidnoy khimii Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Chair of Colloid Chemistry of Moscow State University imeni M. V. Lomonosov)

PRESENTED: August 4, 1958, by P. A. Rebinder, Academician

SUBMITTED: July 10, 1958

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VOLYNIN, N.F., inzh.

The MUM-10 coal hammer with a sprayer, Bazop, truda v pron.  
3 no.10:28-30 O '59. (MIRA 13:2)  
(Coal mining machinery)

VOLYNNIK, A.A.

Significance of separate types of spring wheat roots and  
conditions for their development. Trudy Inst.fiziol.rast. 8  
no.2:312-350 '54.  
(Wheat) (Roots (Botany))

VOLYNKIN, A.A.

Variations in the absorption of water by different parts of the root system in the corn plant. Fiziol.rast. 8 no.3:294-298 '61.  
(MIRA 14:5)

1. Kafedra fiziologii rasteniy Saratovskogo sel'skokhozyaystvennogo instituta.  
(Corn (Maize)) (Plants—Absorption of water)

VOLYNKIN, A. A.

USSR/Agriculture - Plant Physiology

Card : 1/1

Authors : Volynkin, A. A.

Title : Effect of a ground ice crust on the winterization of various types of wheat.

Periodical : Dokl. AN SSSR, 97, Ed. 2, 345 - 348, July 1954

Abstract : The effect of ice crust on the winterization of wheat is discussed.  
Three references. Tables.

Institution : The V. V. Dokuchaev Agricultural Institute of the Central Black-Soil Region

Presented by : Academician A. L. Kursanov, May 3, 1945

VOLYNNIN, G.M.

Improving the equipment of an electroplating shop. Mashinostroitel'  
no.2:9-10 F '65. (MIRA 18:3)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3

VOLINKIN, G.M.

Using electric contact heating in straightening thin-sheet  
structures. Mashinostroitel' no.7:8-9 Jl '65.  
(MIRA 18:7)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3"

VOLYNNIK, K. I., inzhener.

Geographical distribution of leather and footwear industries.  
Leg.prom.16 no.12:10-13 D '56. (MLRA 10:2)  
(Shoe industry). (Leather industry)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3

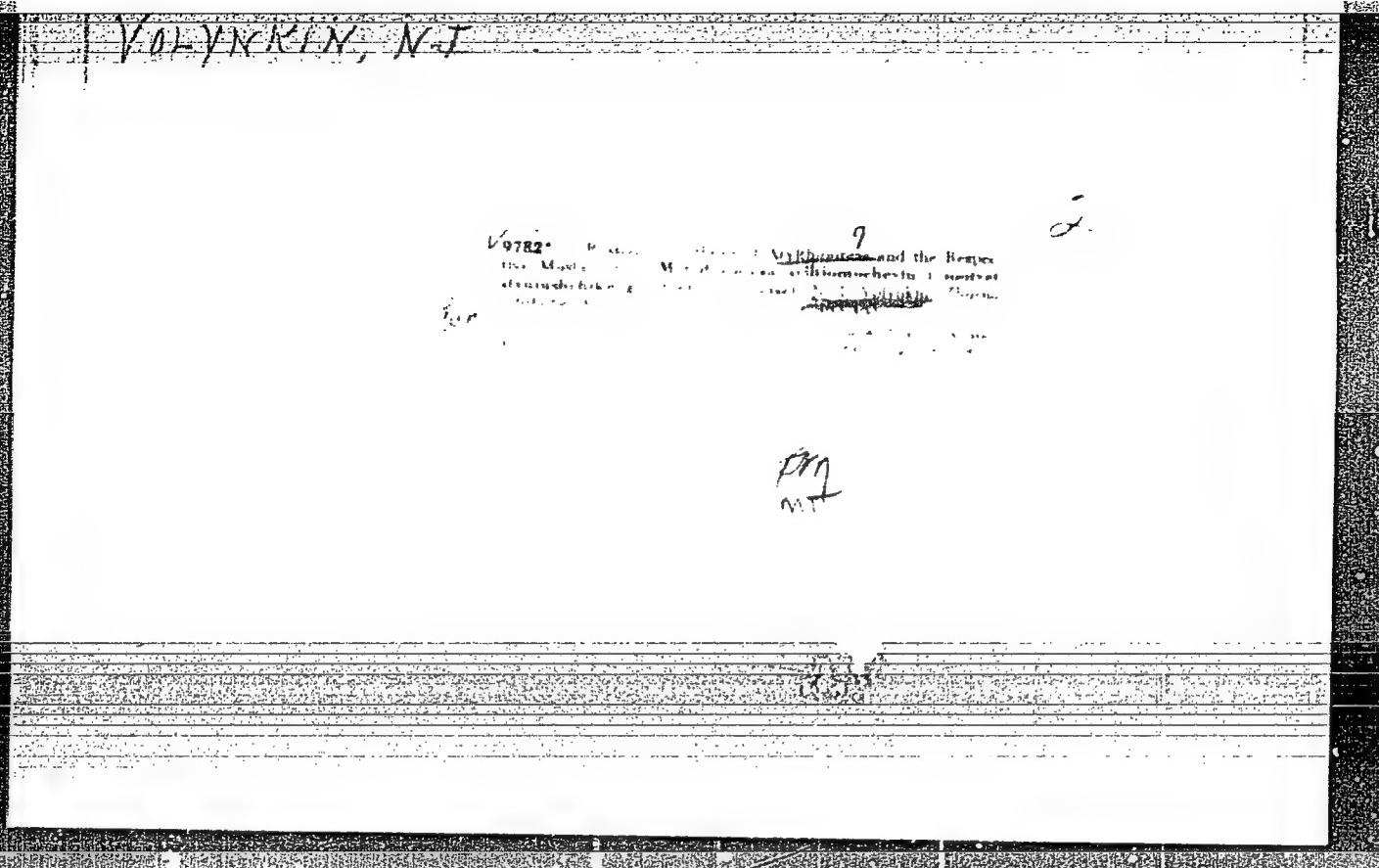
VOLYNNIN, N.I.

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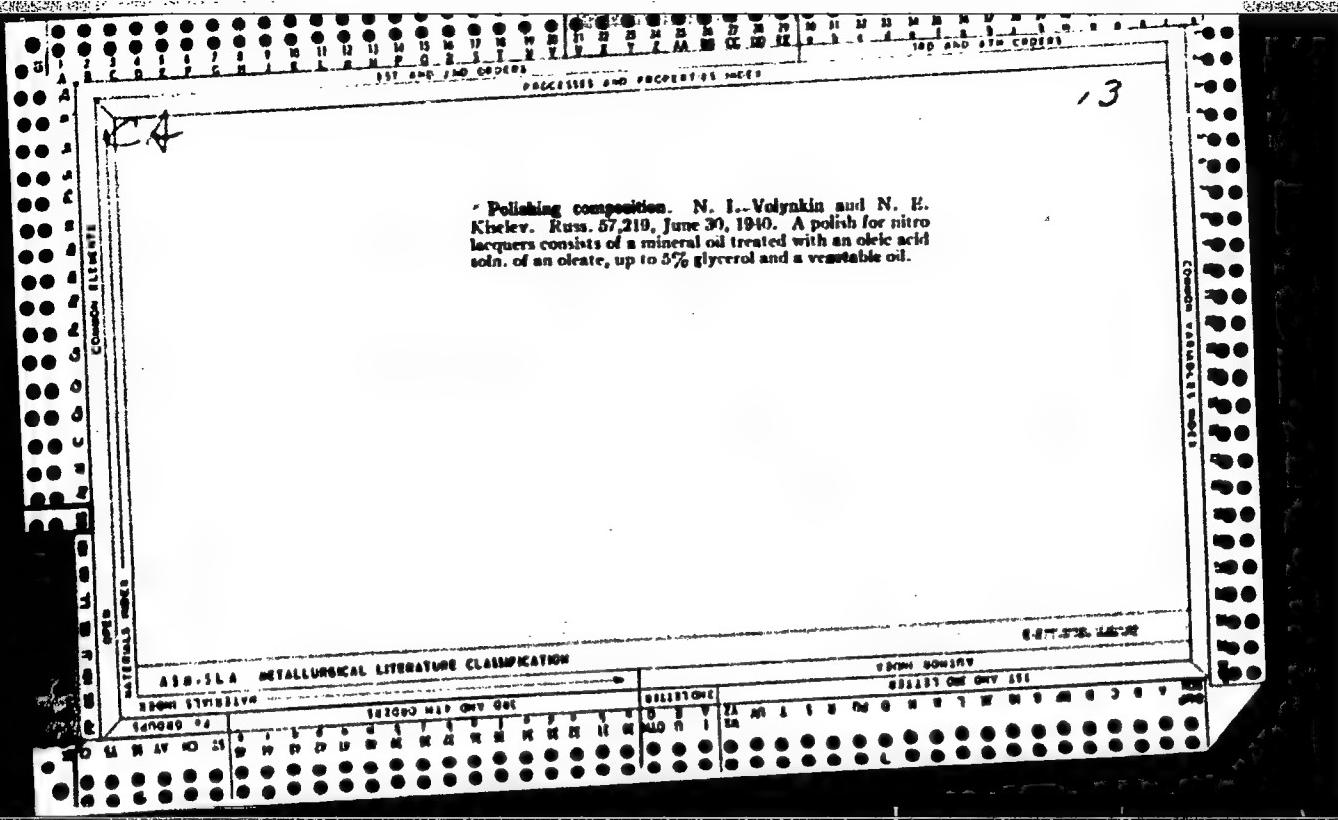
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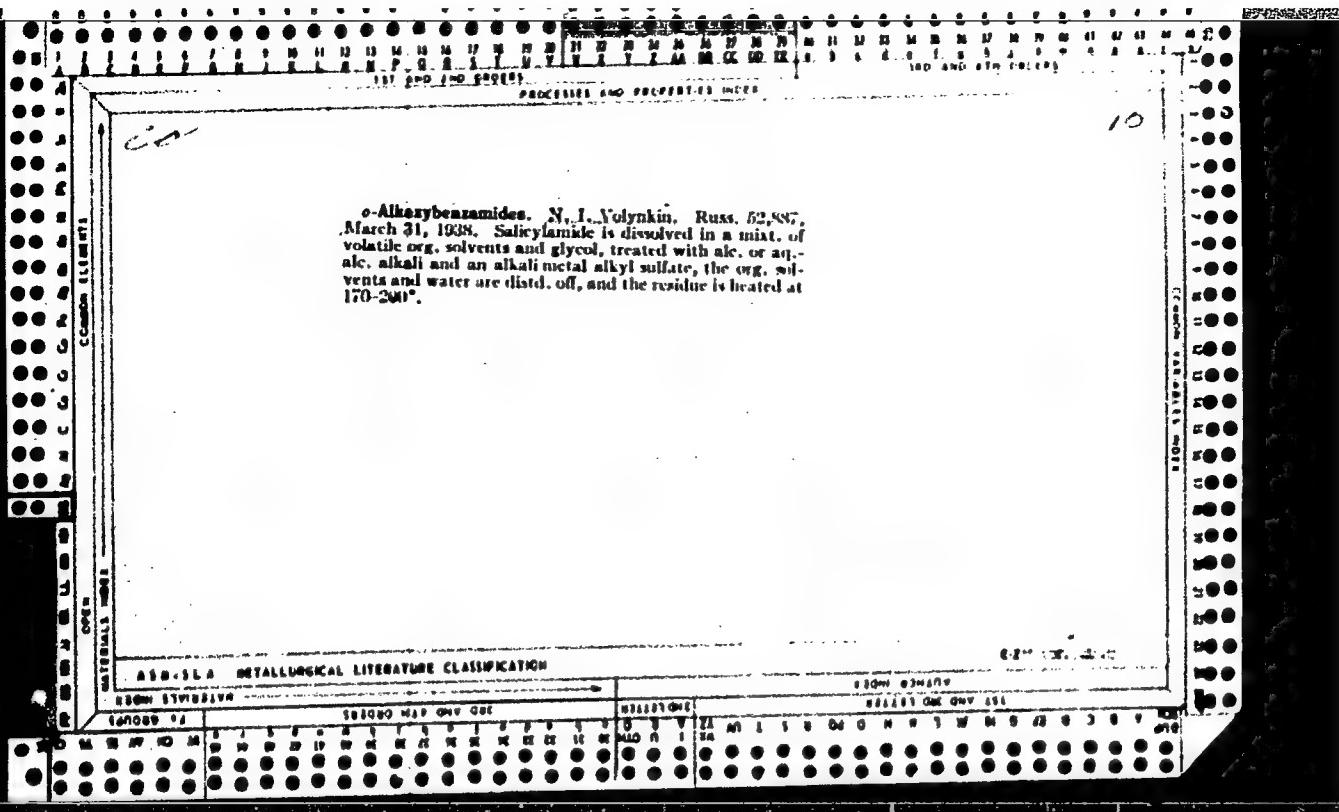
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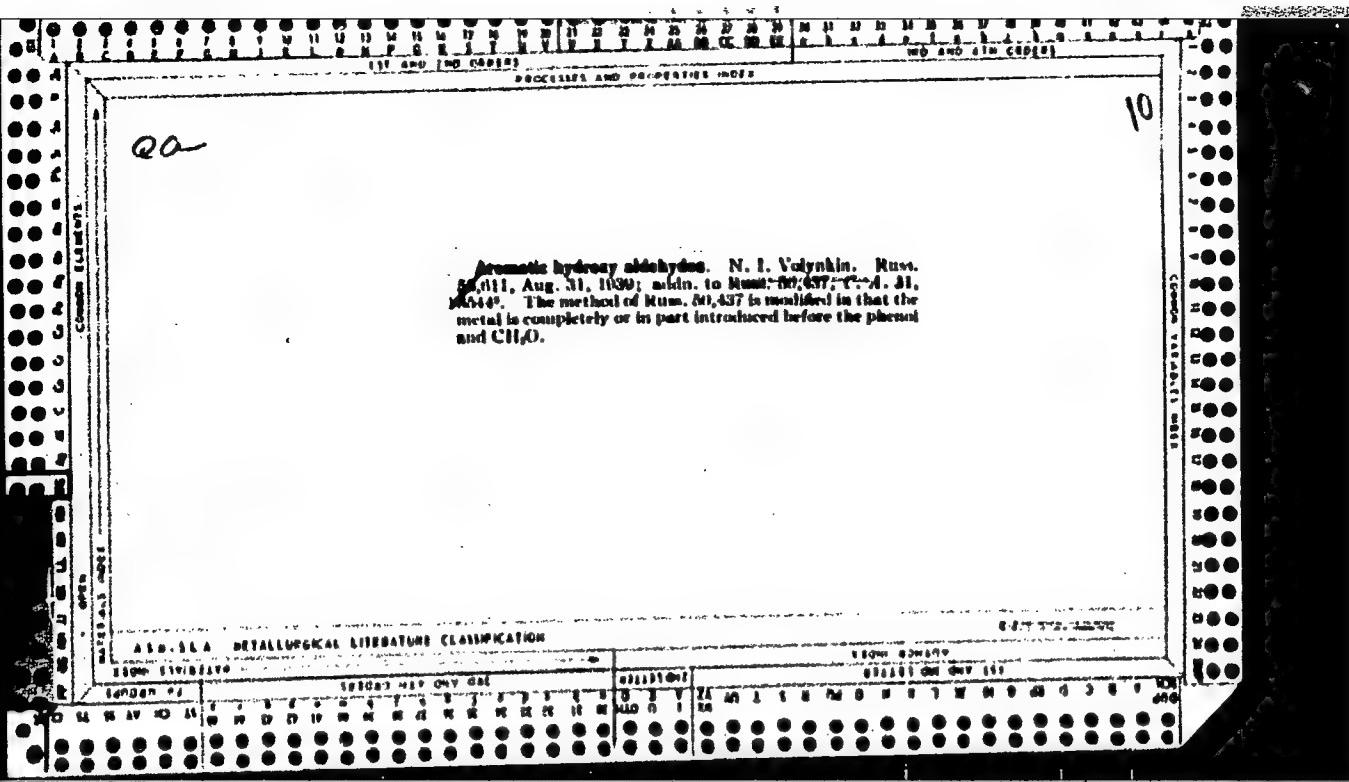
The synthesis of vanillin and other hydroxy aldehydes. N. I. Volyukina. *J. Applied Chem. (U. S. S. R.)* 11, 429 (1938) German 4251103; U. S. 2,318,851. A mixt. of 5 g. of *o*-MeOC<sub>6</sub>H<sub>4</sub>OH, 3.0 g. of 10% HCHO and 0.9 g. of Al filings was added gradually to a mixt. of 20 g. of 10% alc., 25 g. of 30% HCl and 6 g. of *p*-Me<sub>2</sub>NCH<sub>2</sub>NO<sub>2</sub>. The mixt. was added within 4 hrs. and the temp. was kept at 38-40°. The reaction mixt. then was稀释 with water and the vanillin formed was extd with CCl<sub>4</sub> or MePh. After distn. of the solvent in vacuo the vanillin was subjected to 100-400 kg./sq. cm. pressure in a steel beaker which had fine openings for removal of the mother liquor. The vanillin (yield 70% on the guaiacol used), m. 83-4° (after twice wetting with alc. and pressing). By the above procedure but without Al the yield of vanillin was 20%, and without solvent (alc.) 30%. Al used in the synthesis as the reducing agent, permitted lowering the temp. of the condensation, decreased the formation of resins and directed the CHO group to the *p*-position with the respect to OH group, therefore decreasing to the min. the amt. of *o*- and isovanillin, which, in turn, simplified the purification of the vanillin. BiOCeH<sub>2</sub>(OH)CHO was made in a similar manner. See references. A. A. Bulgakov

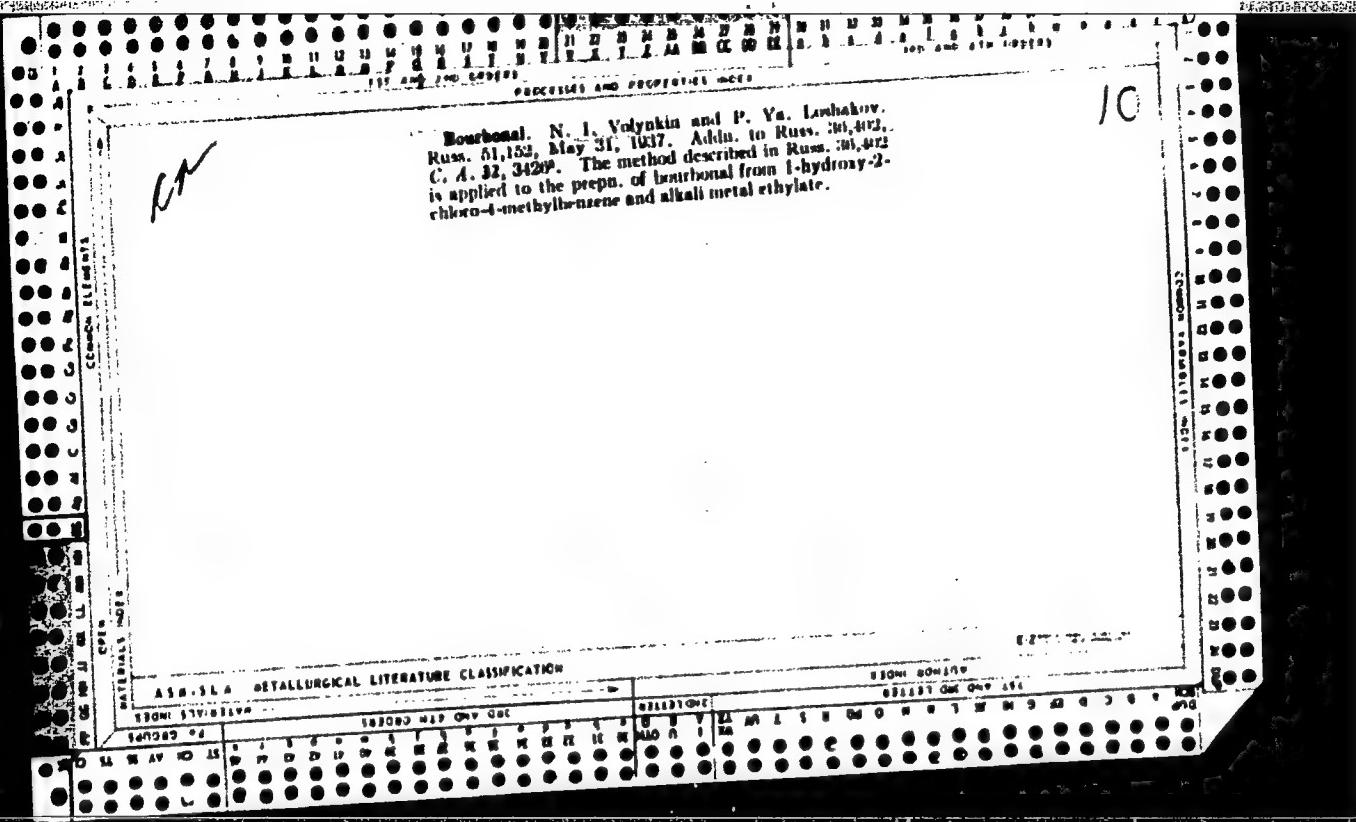
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## ASTM-SEA METALLURGICAL LITERATURE CLASSIFICATION





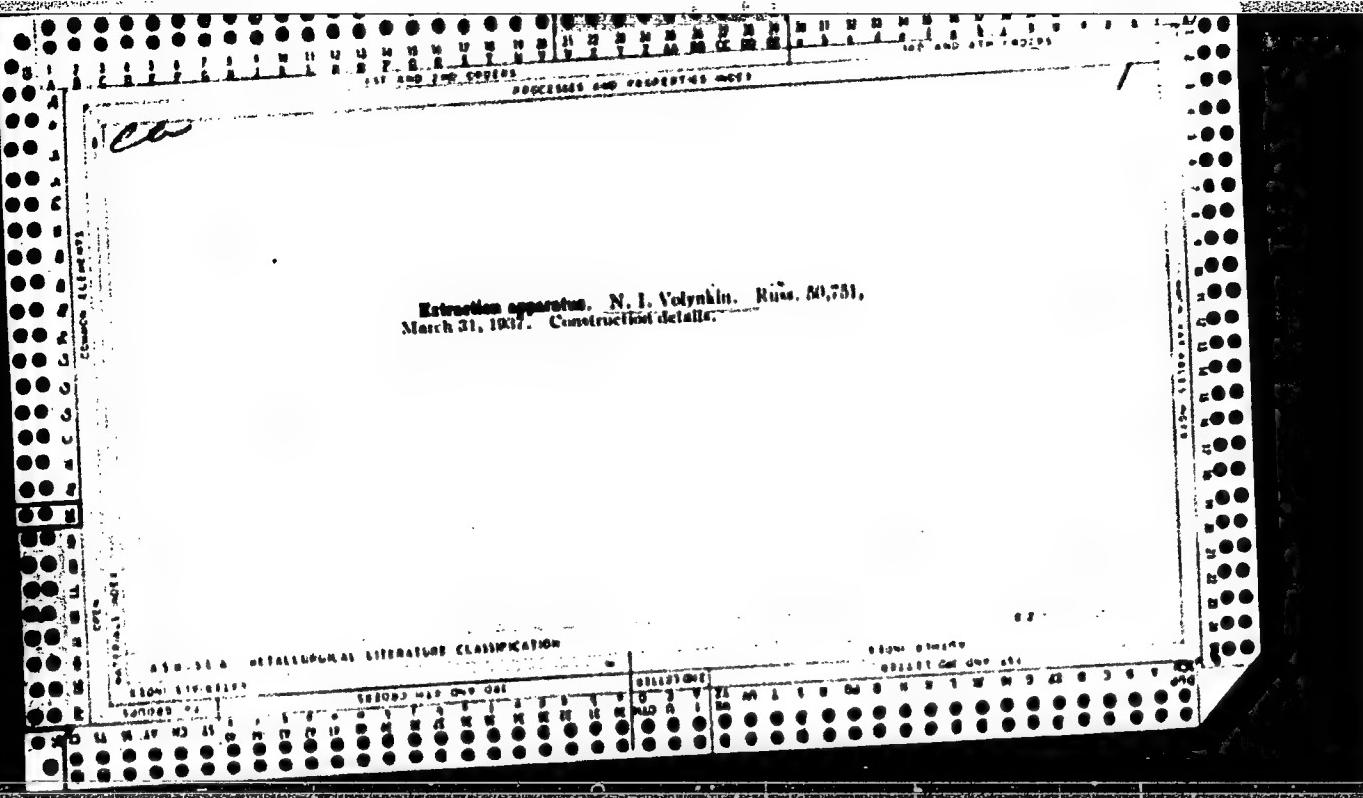






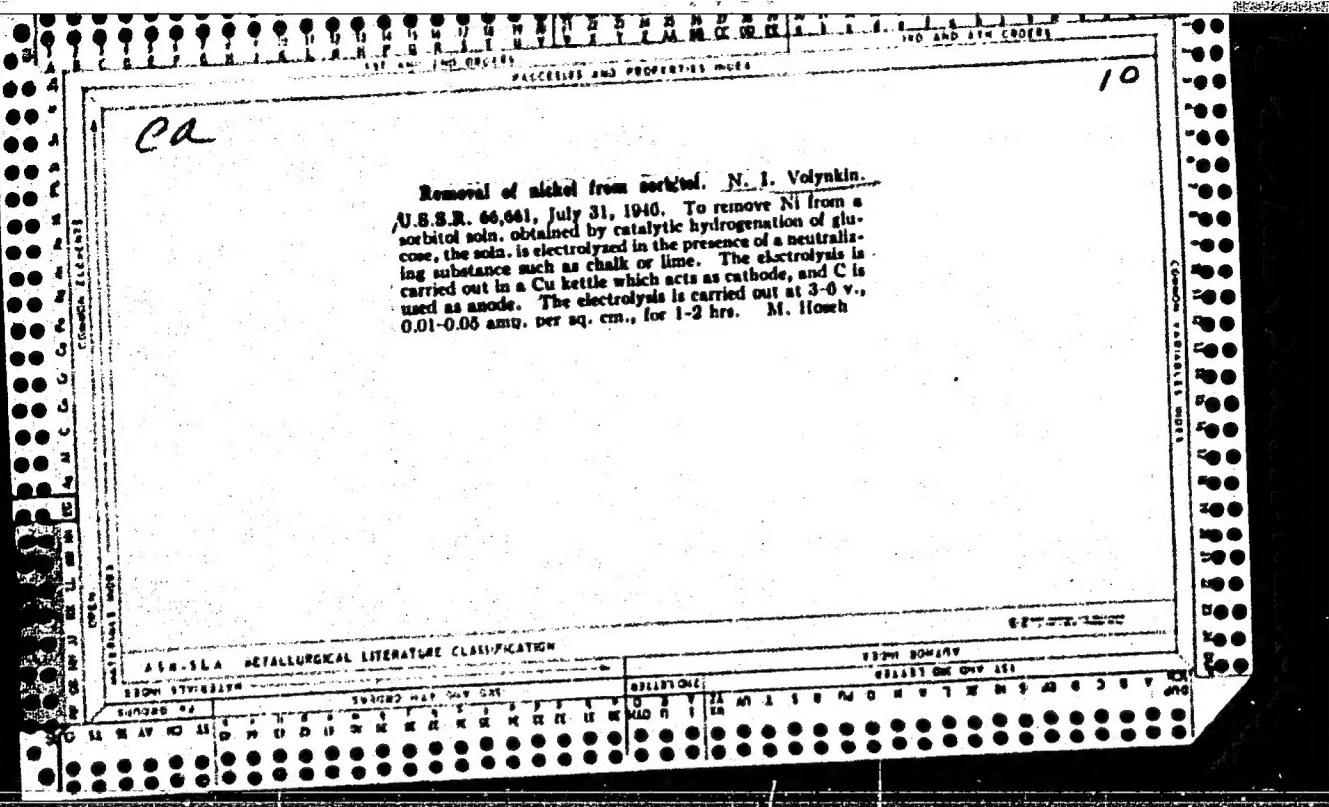
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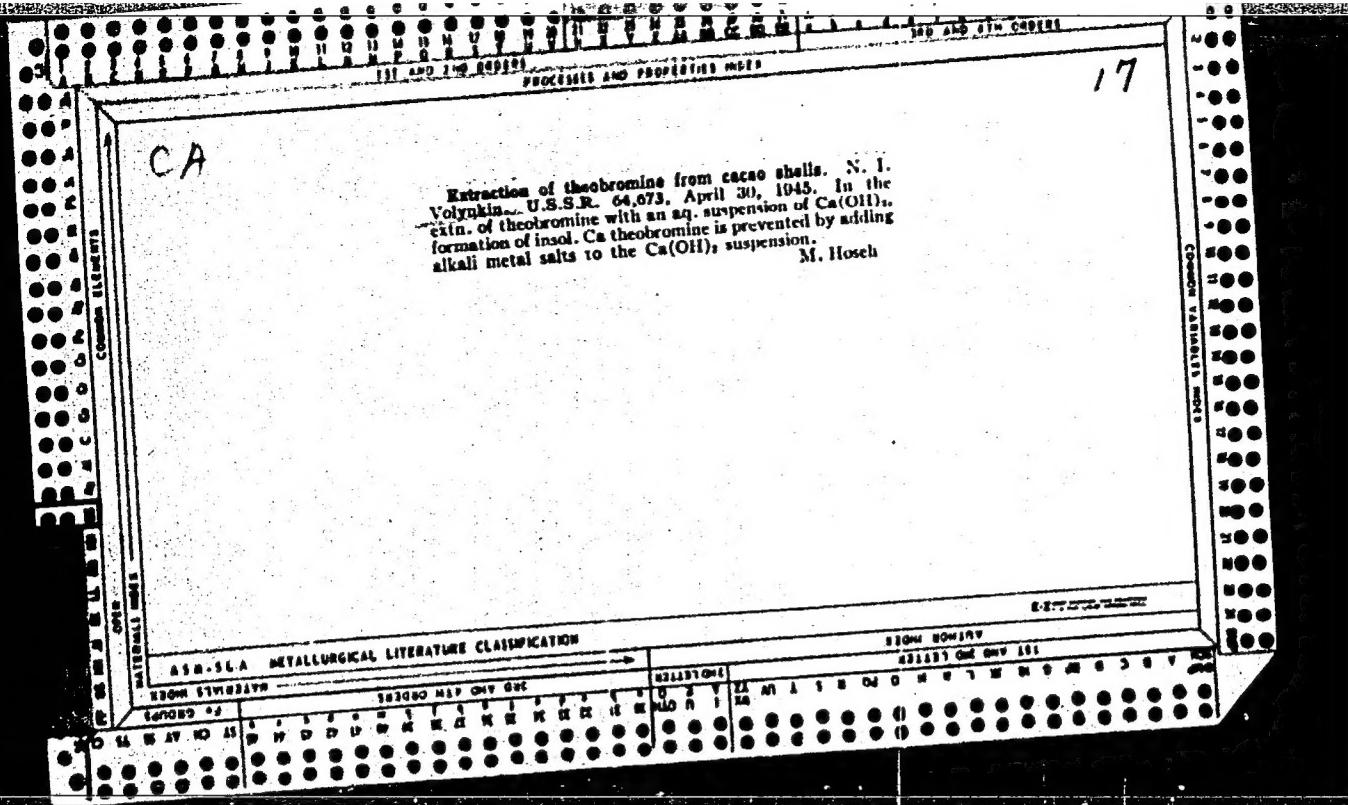
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VOLYNNIK, N.I.

~~Method for the synthesis of arylthiourea and homologous mustard oils.~~ Zhur. ob. khim. 27 no.2:483-485 F '57. (MLRA 10:6)

1. Leningradskiy institut kinoinzhenerov.  
(Urea derivatives) (Isothiocyanic acid)